HD-Q080 AC Series
Pneumatic Ultra-Precision Measuring Probe

The HD-Q080 AC Series is a pneumatic ultra-precision LVDT probe with 0.5 µm accuracy. It features a smooth linear bearing return, triple EMI shielding, PU drag-chain cable, FKM sheath (heat & chemical resistant), M2.5 interchangeable tip, and compact one-piece design. Available in 1–15 mm strokes, it offers <0.25% linearity, <0.1% repeatability, and IP65. Ideal for flatness, thickness, automotive glass/parts, and bearing runout inspection.



FEATURES

- 0.5 µm ultra-precision probe
- Precision linear bearing, smooth return
- Triple-shielded against EMI
- PU cable for drag chains
- FKM sheath, high-temp & chemical resistant
- M2.5 interchangeable tip
- One-piece body, easy mounting

GREAT FOR

- Flatness inspection
- Thickness measurement
- Automotive glass inspection
- Automotive parts inspection
- Bearing runout measurement

SPECIFICATIONS

Performance

Code	Stroke Range (mm)
TSD-Q080-010-X-AC	1
TSD-Q080-020-X-AC	2
TSD-Q080-050-X-AC	5
TSD-Q080-100-X-AC	10
TSD-Q080-150-X-AC	15

All values are nominal unless otherwise noted. Dimensions are in mm unless otherwise noted

FR: Full Range is the stroke range, end to end; FR= S for 0 to S stroke range

FRO (Full Range Output): Algebraic difference in outputs measured at the ends of the range

Electrical

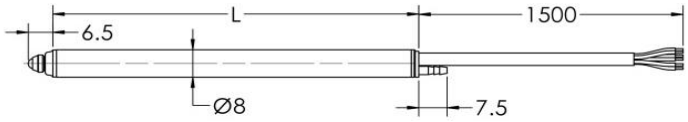
Power s Supply	3 V rms(1~7V rms Optional)
Input Frequency	2.5KHz (400~10KHz Optional)
Resolution	Depends on electronics
Non-linearity (maximum)	<0.25%
Repeatability	< 0.1%
Operating Temperature	-10℃...85℃
TC of Sensitivity	< 0.01%℃
Phase Shift	3°±3°
Structure	Spring-return (spring-loaded)
Wiring	6-core shielded cable
Output Signal	1000g,11ms
Supply Air Pressure	200 kPa
Pre-travel / Over-travel	>0.3 mm
Mechanical Response	10 Hz ~ 200 Hz @ 20 °C
IP Grade	IP65

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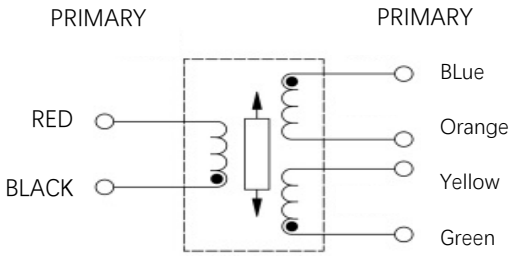
The information provided herein is, to the best of Hansensol's knowledge, true and accurate.
It is provided for guidance only, and all specifications are subject to change without prior notice.

Dimension [mm]

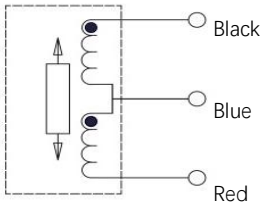
Code	Dim "L"
TSD-Q080-010-X-AC	60
TSD-Q080-020-X-AC	60
TSD-Q080-050-X-AC	67
TSD-Q080-100-X-AC	97
TSD-Q080-150-X-AC	125



Wiring



LVDT



LVRT

ORDERING INFORMATION

HD - Q 080 - 100 - D - AC

Structure	
Q	Pneumatic (air-operated)

Outer Diameter	
080	8mm

Stroke Range	
Code	Stroke
010	1mm
020	2mm
050	5mm
100	10mm
150	15mm
Customizable Range	

Output	
AC	AC output

Bridge Type	
D	LVDT
R	LVRT

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